RYCHTERA, M.

Influence of climatic factors on electric equipment in the tropics and electric climatology. p. 499.

SLABOPROUDY OBZOR. (Ministerstvo vesobecniho strojirenstvi, Ministerstvo, spoju a Ceskislovenska vedecko-technicka spolecnost, sekce elektrotechnika) Praha, Czechoslovakia, Vol. 20, No. 7, July 1959.

Monthly List of East European Accessions. (EEAI) LC, Vol. 8, No. 11, Novmeber, 1959.

Uncl.

RYCHTERA, M.; BARTAKOVA, B.

Moistening of dielectrics in surroundings with high humidity contents. p. 193

ELEKTROTECHNICKY OBZOR. (Ministerstvo tezkeho strojirenstvi a Ceskoslovenske vedecka technicka spolecnost pro elektrotechniku pri Ceskoslovenska akademii ved) Praha, Czechoslovakia. Vol.48, No. 4, Apr. 1959

Monthly List of East European Accessions (EEAI), LV, Vol. 8, no. 7, July 1959
Uncl.

L 38132-65

AM5004019

BOOK EXPLOITATION

CZ/

METEOROLOGY; ELECTRIC POWER

5
BH

Rychtera, Miroslav (Engineer)

The problem of atmospheric deterioration of electrical equipment
(K problematice atmosferickeho znehodnocovani elektrickych zarizeni)
Prague, NCAV, 1964. 169 p. illus., biblio., plates (part col.),
tables, index. 1500 copies printed.

TOPIC TAGS: weather, weather effect, weather deterioration effect, electrical equipment, electrical network, power plant

PURPOSE AND COVERAGE: The book is intended for personnel dealing with the effects of weather on the function and service life of electrical equipment. The book represents a first attempt to summarize and classify the results of laboratory and field investigations of the deteriorating effects of weather on the function and service-life of electrical equipment, power plants, and lines.

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SUBMITTED: 00 OTHER: 140

NO REF SOV: 000 SUB CODE: EE

Card 5/5

RYCHTEROVA H

PUJMAN, V.; DOLEZELOVA, V.; PROKOPOVA, S.; RYCHTEROVA, H.

Sensitivity of certain leukemic and leukemoid changes to anti-cancer drugs. Cesk. fysiol. 6 no.4:523-526 Nov 57.

1. Vyzkumny ustav pro farmacit a biochemii, Praha.
(BUISULFAN, effects,
on exper. leukemic & leukemoid reactions (Cz))
(LEUKEMIA, experimental,
eff. of busulfan on leukemic & leukemoid reactions (Cz))

RYCHTEROVA, H

PUJMAN, V.; PROKOPOVA, S.; RYCHTEROVA, H.

Studies on blood picture in Sigmodom hispidus. Cesk. fysiol. 6 no.4: 533-535 Nov 57.

1. Vyzkumny ustav pro farmacil a biochemii, Praha.
(BLOOD CELLS,
count in Sigmodom hispidus (Cz))

CERNY,M.; ELEFANT,E.; JEKLEROVA,J.; RYCHTEROVA,V.

Autosomal mosaic 45/46/47 in Down's disease with an unusual heart abnormality. Cas.lek.cesk. 103 no.10:270-274 ; 6 Mr'64.

1. Biologicky ustav fakulty vseobecneho lekarstvi KU v Praze; (prednosta: prof. MUDr. et RNDr. B.Sekla); III.detska klinika fakulty vseobecneho lekarstvi KU v Praze (prednosta: prof. dr. O.Vychytil) a II.patologickoanatomicky ustav fakulty vseobecneho lekarstvi KU v Praze (prednosta: prof.dr.V.Jedlicka).

*

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BC

a-1

Thermal analysis of the [illegible] antipyrine–trichlorobutyl alcohol. [illegible] (Wied. farm., 1934, 61, [illegible] 1934, ii, 3647—[illegible]—No mol. [illegible] formed. Eutectic [illegible] containing [illegible] mol.-% antipyrine (I) and [illegible] (II) [illegible] 5 [illegible] of trichlorobutyl [illegible]

A. G. P.

COMMON ELEMENTS

COMMON VARIATIONS

OPEN

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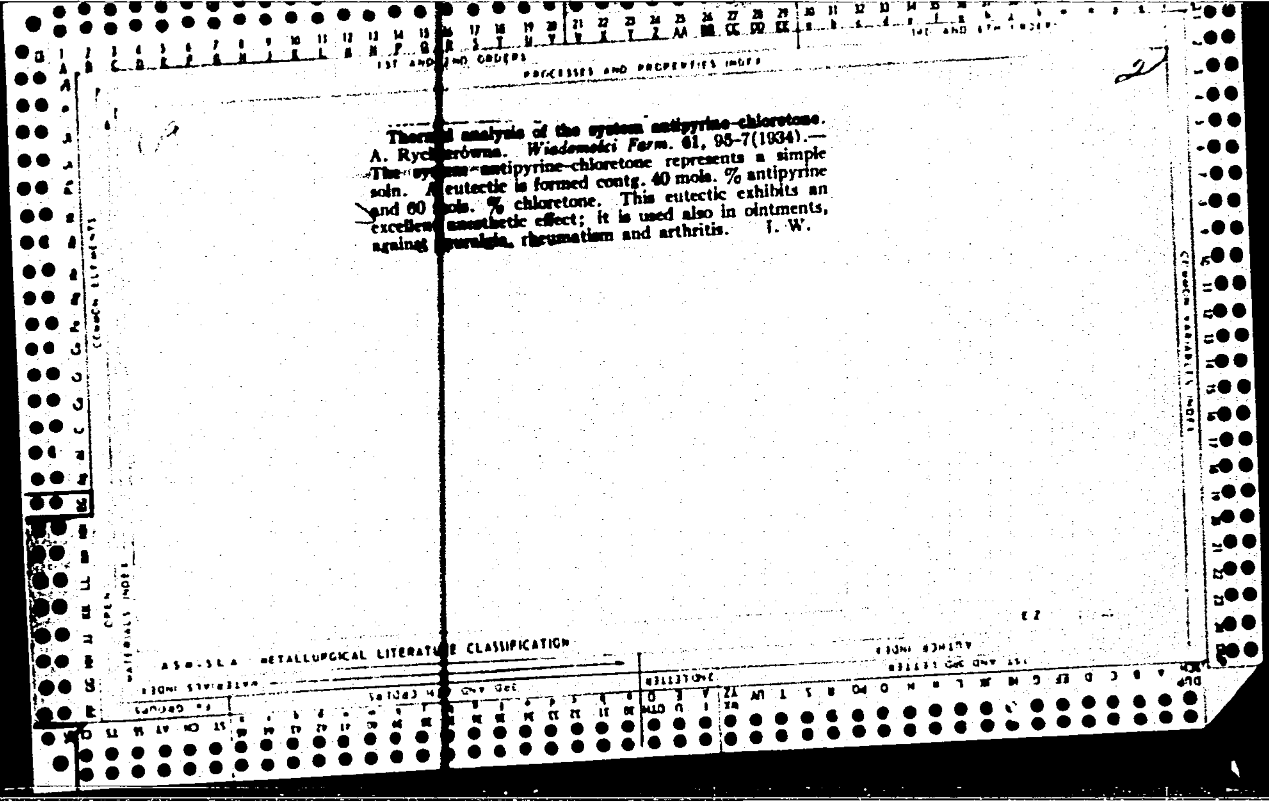

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

The[illegible] analysis of the system antipyrine-chloretone. A. Rych[illegible]równa. *Wiadomości Farm.* 61, 95-7(1934).—The sy[illegible]-antipyrine-chloretone represents a simple soln. [illegible] eutectic is formed contg. 40 mols. % antipyrine and 60 [illegible]ols. % chloretone. This eutectic exhibits an excellen[illegible] anesthetic effect; it is used also in ointments, against [illegible]uralgia, rheumatism and arthritis. I. W.

NOVOTNY, F.; RYCHTR, L.

Liquid-liquid-equilibrium in the chloroprene-acryl nitrile-water system. Coll Cz Chem 29 no.10:2558-2561 O '64.

1. Kaucuk, Kralupy nad Vltavou.

RYCHTR, L. ; JAKUBICEK, J. ; MERVART, Z.

"A new apparatus for the determination of liquid equilibrium under pressure." p. 426.

CHEMICKE LISTY. Praha, Czechoslovakia, Vol. 53, no. 4, Apr. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 8, August, 1959.
Uncl.

RYCHTR, L.

New apparatus for the determination of liquid-liquid equilibrium under pressure. Josef Jakubiček, Ladislav Rychtr, and Zdeněk Mervart (Výzk. ústav synth. kaučuku, Gottwaldov-Zlín, Czech.). *Chem. listy* 53, 426-8(1959).—An app. for liquid-liquid equil. measurements consists of a metal pressure vessel for pressures up to 12 atm. The vessel is surrounded by a thermostated jacket and fitted with sampling capillaries for upper and lower phase and with an inspection window. The app. is suitable for measuring 4-C hydrocarbon-solvent equil. M. Hudlický

6
2

Distr: 4E3d/4E2b(w)

H-22

POLAND / Chemical Technology, Chemical Products and Their Application. Chemical Processing of Solid Fossil Fuels.

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 16814

Author : Rychty, J.
Inst : ~~Not given~~
Title : Utilization of the Semi-Coke Gas in Chemical Industry and Problems of its Manufacture

Orig Pub : Koks, smola, gaz, 1958, 3, No 3, 98-106

Abstract : Bases of chemical refining of coal in the PDR employing the semi-coking method are described along with the utilization of resulting gas for chemical syntheses, petro-chemicals and power generation. Various methods of semi-coking and gasification of pulverized coal are also reviewed. -- D. Tsikarev

Card 1/1

H-75

RYCNLY, J.

2009. LOW-TEMPERATURE CARBONISATION GAS FROM LURGI OVENS. Rycnly, J. and Zielinski, H. (Przegl. Gorn. (Min. Rev.), Aug. 1953, vol. 9, [illegible]) Properties of the gas are given in particular gas from Lurgi ovens without diaphragms. Improvement of gas quality by using oxygen instead of air in the burners with separate circulation of gases in a dryer, or by recuperative heating instead of a combustion chamber, are discussed with flow diagrams. Methods of obtaining gasoline from the gases are included. (L).

RYCTER, W.

(HORYZONTY TECHNIKI, Vol. 6, No. 9, Sept. 1953, Warszawa, Poland)
"Toys which educate,/" p. 386

MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, L.C., Vol. 3, No. 4, APRIL 1954

1ST AND 2ND ORDERS

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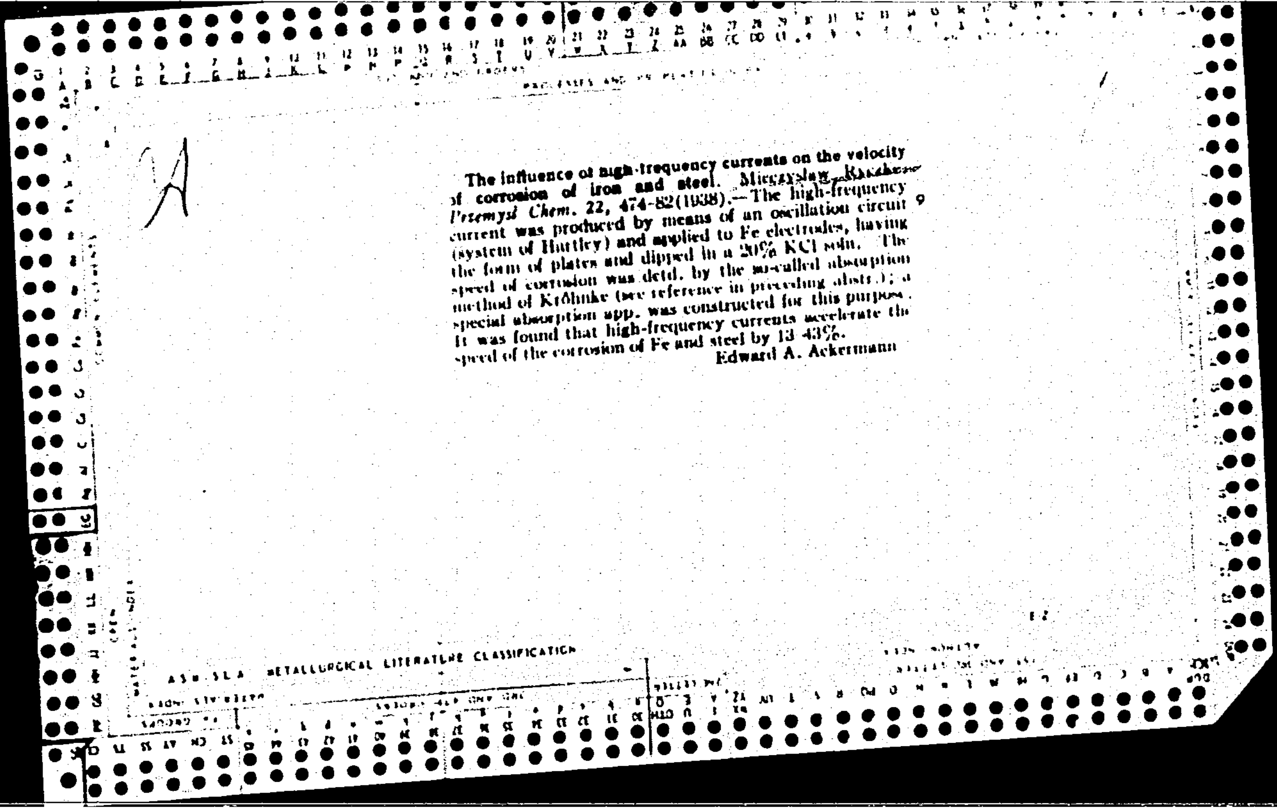
BC

B-I-5

Influence of high-frequency currents on rate of corrosion of iron and steel. M. RYCZKE (Przemysł Chem., 1938, 22, 474—482).—Corrosion (measured manometrically from O_2 uptake) of Fe and steel in 0·5N-KCl is increased by 13—43% when a high-frequency current (5·26 × 10^6 cycles) is passed through the metal. The effect is ascribed to depassivation of the Fe surface by H', and not to the detector effect caused by rust, as was supposed by Mauss and Duffek (cf. B., 1935, 27). R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The influence of high-frequency currents on the velocity of corrosion of iron and steel. Mieczyslaw [illegible]. *Przemysl Chem.* 22, 474-82(1938).—The high-frequency current was produced by means of an oscillation circuit (system of Hartley) and applied to Fe electrodes, having the form of plates and dipped in a 20% KCl soln. The speed of corrosion was detd. by the so-called absorption method of Kröhnke (see reference in preceding abstr.); a special absorption app. was constructed for this purpose. It was found that high-frequency currents accelerate the speed of the corrosion of Fe and steel by 13-43%.

Edward A. Ackermann

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

NOWAK, Stanislaw; BROMBOSZCZ, Antoni; RYCZEK, Bronislaw

Use of buscopan and buscopan-compositum in labor and puperperium. Polski tygod. lek. 16 no.36:1397-1400 4 S '61.

1. Z II Kliniki Ginekologiczno-Polozniczej A.M. w Krakowie; kierownik: prof. dr. med. M. Seidler.

(SCOPOLAMINE rel cpds) (LABOR) (PUERPERIUM)

H-13

POLAND/Chemical Technology. Chemical Products and Their
Application. Ceramics. Glass. Binding Materials.
Concrete.

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5401.

Author : Akerman, Karol; Krajewski, Jan; Ryczek, Michal;
Kruszewski, Klemens.

Inst :

Title : Research in Region of Selective Enrichment of Baltic
Sands Containing Zircon.

Orig Pub: Przem. chem., 1958, 37, No 5, 343-349.

Abstract: No abstract.

Card : 1/1

WESOLOWSKI, Kornel, prof. dr; RYCZEK, Michal, dr

Iron occurring in coal and its behavior during mechanical processing. Przegl gorn 20 no.10:507-513 O '64.

Ryczek, Michal

6

Distr: 4E2c 27

Selective enriching of sands containing zirconium occurring on the Polish coast of the Baltic sea. I. Karol Akerman, Jan Krajewski, Michal Ryczek, and Klemens Kruszewski (Inst. Metali Lekkich i Rzadkich, Skawina, Poland). *Przemysl Chem.* 37, 343-9 (1958) (English summary).—By dry and wet sieving and electrostatic and electromagnetic sepn. concentrates of zircon, magnetite, ilmenite, garnet (almendite), and staurolite were obtained from Polish sands. The mineralogical compn. of these sands is: gravel (>2 mm.) 2.3, light fraction 60.2, and heavy fraction 37.5%; the latter fraction contains magnetite 1.2, ilmenite 11.4, zircon 1.8, rutile 0.8, tourmaline 0.3, garnet 10.4, staurolite 0.9, epidote 0.7, disthene (kyanite) 1.7, amphibole 1.8, andalusite in traces, augite 0.1, hypersthene 0.3, olivine in traces, titanite in traces, and apatite 0.1%. From 10 ton of raw sand, after removal of particles larger than 2 mm. and after wet classification to obtain the heavy fraction, the electrostatic sepn. of the latter (27 kv.) produced 2 fractions: nonconducting and conducting fractions. The conducting fraction was subjected to electromagnetic sepn. (0.5 amp.) which yielded the ilmenite fraction (nonmagnetic) and the titanite-magnetite fraction. The nonconducting fraction was subjected to 4-stage electromagnetic sepn. (0.8, 0.8, 1.5, and 1.0 amp.) which yielded 3 fractions: magnetic fraction of pure garnet (almendite), middle fraction contg. staurolite and epidote, and nonmagnetic fraction which after sieving gave zircon concentrate (particles below 0.15 mm.) and disthene (particles above 0.15 mm.). The sands from the Jaroslawiec district gave 1.34% zircon concentrate which contained over 50% $ZrSiO_4$, corresponding to approx. 95% yield. This fraction contained also ilmenite 9.6, rutile 16.6, disthene 5.8, staurolite 3.1, and light fraction 14.4%. The ilmenite fraction contained over 89% ilmenite. The epidote concentrate showed an increase in radioactivity over the raw material. F. T. Hendel

RYCZKOWSKI, M.

Changes in the concentration of sugars in developing ovules.
Acta soc botan Pol 31 no.1:53-65 '62.

1. Department of Plant Physiology, Jagellonian University, Krakow.

Country : USSR
Category : Farm Animals.
Cattle.
Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96870

Q

Author : Rydak, P. L.
Institut. : -
Title : Raising Young Stock with Various Types of Nutrition.

Orig Pub. : Sel'sk. gaspadarka Bilarus., 1957, No 9, 29

Abstract : An experiment was conducted at the farm of the Vasilishkovskaya experimental station which compared two types of nutrition for young cattle stock. Until the age of 6 months both groups received the same feedings. Beginning with the 7th month until calving, the 1st group received 3553 feed units including concentrates which amounted to 869.4 feed units. During this period the 2nd group received 3480 and 596.2 feed units, respectively. During an equal period of

Card: 1/3

42

Country : USSR Q
Category : Farm Animals.
Cattle.
Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96870

Author :
Institut. :
Title :

Orig Pub. :

Abstract : time, 1,822 kg more of bulky fodder was fed to the 2nd group. At the age of 6 months, the average weight of the yearlings of the 1st group amounted to 176 kg, and 10 days before calving to 526 kg; the figures for the 2nd group were 169 and 500.5, respectively. The fodder expenditures were the same (10 feed units) per 1 kg of weight gain; more concentrates were expended, however, in the 1st group in order to obtain 1 kg of weight gain. It is recommended to raise the pure-bred calves of

Card: 2/3

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Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, pp 210 - 211 (USSR)

AUTHORS: Krylov, K.I., Rydakov, V.N.

TITLE: Use of the Michelson Interferometer 21 for the Determination of the Electrical Parameters of Substances at UHF

PERIODICAL: Izv. Leningr. elektrotekhn. in-ta, 1958, Vol 36, pp 139 - 149

ABSTRACT: The authors describe the application of the Michelson interferometer to the measurement of the dielectric constant and tangent of the loss angle in the UHF range. The interferometer consists of a klystron oscillator with a power of 15 mw operating on a 3.2 cm wavelength, a receiver, and a system of mirrors by means of which the interference is effected. The klystron signal is amplitude-modulated by square pulses. Radiation and reception are accomplished with the aid of horn antennae. A wooden frame with a number of parallel conductors stretched on it serves as the semi-transparent element. The grid is semi-transparent to 3.2 cm waves when the distance between the conductors amounts to 12 mm and the frame is oriented at an angle of 45° to the direction of propagation. The interferometer mirrors, made of

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Use of the Michelson Interferometer for the Determination of the Electrical Parameter of Substances at UHF

massive metallic sheets, are moved with the aid of micrometric screws, and a sample in the form of a plane layer is placed on one of the mirrors. The authors provide a rigorous solution to the problem concerning the interference of a wave reflected from a mirror with a wave reflected from a mirror with a layer of the substance under investigation. On the basis of this solution, the authors submit methods for determining the refractive index of a loss-free substance, as well as the refractive index and dielectric loss tangent of a substance subject to small losses. By way of illustration, they cite the results of measuring ε and tgδ in pyrex at frequencies ranging from 10^2 to 9.37×10^9 c.

V.P.K.

Card 2/2

RYCZKOWSKI, M.

Sugars and osmotic value of the sap surrounding the embryo in developing ovules (dicotyledonous perennial plants). Acta soc botan Pol 33 no.2:397-406 '64.

1. Department of Plant Physiology, Jagiellonian University, Krakow.

POLAND

RYCZKOWSKI, M., Plant Physiology Research Office (Zaklad Fizjologji Roslin) of PAN [Polska Akademia Nauk, Polish Academy of Sciences] in Krakow

"Changes in the Osmotic Value of the Central Vacuolar Sap in Developing Ovules (Dicotyledonous Perennial Plants)."

Warsaw, Bulletin de L'Academie Polonaise des Sciences, Serie des Sciences Biologiques, Vol 10, No 9, 62, pp 371-374.

Abstract: [English article, author's Russian summary] Experimental investigations of the osmotic value and viscosity of the central vacuolar sap in ovules of Aesculus pavia and Aesculus glabra. Osmosis was determined by thermoelectric methods, and viscosity with a viscosimeter. It was established that the osmotic value and viscosity undergo characteristic changes in the process of ovule development, analogous to those found in year-old monocotyledonous plants. The nine references are for four Polish, three German, one American, and one Russian publications.

1/1

POLAND

RYCZKOWSKI, M. Chair of Plant Physiology (Katedra Fiziologii Roslin), Jagellonian University (Uniwersytet Jagiellonski), Krakow.

"Changes in the Osmotic Value of the Sap from Embryos, the Central Vacuole, and the Cellular Endosperm During Development of the Ovules."

Warsaw, Bulletin de L'Academie Polonaise des Sciences, Serie des Sciences Biologiques, Vol 10, No 9, 62, pp 375-380.

Abstract: [English article, author's Russian summary modified] Experimental thermoelectrical determination of the osmotic value of the sap from both Aesculus pavia and Haemanthus Katharinae established that in both plants the somotic value of the embryo sap was higher than that of the central vacuole or cellular endosperm. Both types of sap show characteristic changes during the development of the ovules. Of the ten references, four are published in Poland, two in Denmark, and two each are in Russian and German.

1/1

RYCZKOWSKI, M.

Observations on the osmotic value of the central vacuole sap in Haemanthus Katharinae Bak. ovule. Bul Ac Pol biol 8 no.4:143-148 '60. (EEAI 9:10)

1. Department of Plant Physiology (Krakow) Polish Academy of Sciences. Presented by W.Szafer.

(OSMOSIS)
(SAP)
(HAEMANTHUS KATHERINAE)

RYCZKOWSKI, M.

Changes in the osmotic value of the sap from embryos, the central vacuole and the cellular endosperm during development of the ovules. Bul Ac Pol biol 10 no.9:375-380 '62.

1. Department of Plant Physiology, Jagiellonian University, Krakow. Presented by B. Pawlowski.

RYCZKOWSKI, M.

Changes in the osmotic value of the central vacuolar sap in developing ovules. (Dicotyledonous perennial plants). Bul Ac Pol biol 10 no.9:371-374 '62.

1. Institute of Plant Physiology, Krakow, Polish Academy of Sciences, Presented by B. Pawlowski.

RYCZKOWSKI, M.

Investigations on viscosity and surface tension of the central vacuole sap in the Haemanthus Katharinae Bak. ovule. Bul Ac Pol biol 8 no.4:149-154 '60. (EEAI 9:10)

1. Department of Plant Physiology, Jagellonian University, Krakow. Presented by W.Szafer.

(SAP) (HAEMANTHUS KATHERINAE)

1ST AND 2ND ORDERS

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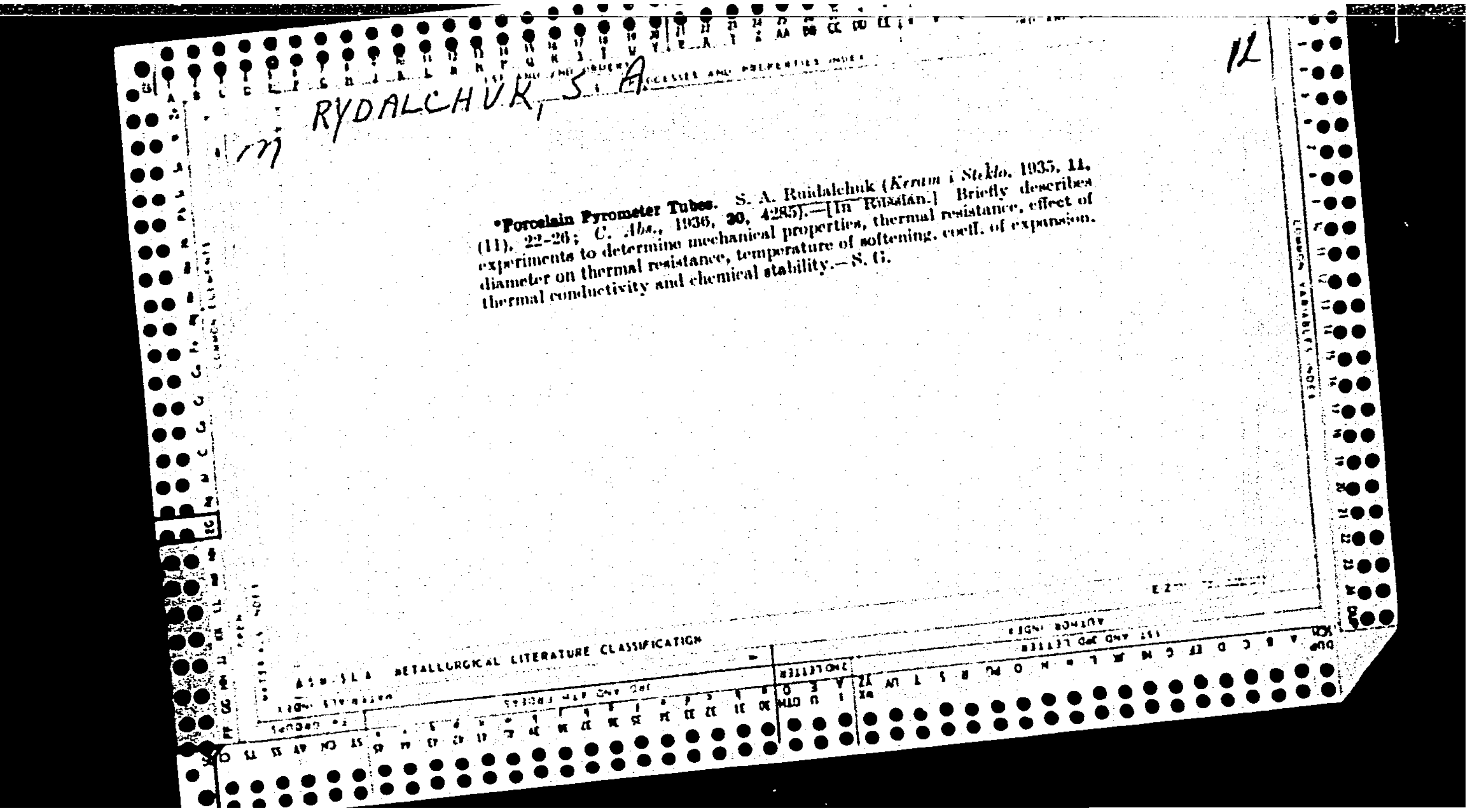
3RD AND 4TH ORDERS

ca

19

Andalusite in porcelain bodies. O. A. Rydalchuk. *Keram. i Steklo* 13, No. 1, 23-9(1937).—Andalusite porcelain mixes are easily worked, pressed, shaped or cast. Andalusite decreases the firing shrinkage. Bodies contg. andalusite should be fired at higher temps. than those without it. Porosity of andalusite bodies is generally lower, but with increased andalusite content it increases. Mech. strength is increased; when 30% andalusite is added to the mix, its mech. strength increases 72%. The coeff. of expansion increases with the addn. of andalusite. Thermal resistance of andalusite bodies is considerably lower than that of high-grade technical porcelain, especially when cast. Their refractoriness is considerably higher. Andalusite cannot be used for ware subjected to severe temp. fluctuations. Andalusite bodies are affected by corroding gases and acids. When used to replace quartz or sand in technical porcelain, andalusite improves all the properties. M. V. Condoide

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

RYDALCHUK, S. A.

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/m

•**Porcelain Pyrometer Tubes.** S. A. Ruidalchuk (*Keram i Steklo*, 1935, **11**, (11), 22-26; *C. Abs.*, 1936, **30**, 4285).—[In Russian.] Briefly describes experiments to determine mechanical properties, thermal resistance, effect of diameter on thermal resistance, temperature of softening, coeff. of expansion, thermal conductivity and chemical stability.—S. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VALLANDER, S.V.; YEGOROVA, I.A.; RYDALEVSKAYA, M.A.

Equilibrium statistical distributions of gases differing in Boltzmann's distribution. Vest. LGU 19 no.19:110-113 '64.
(MIRA 17:11)

ACCESSION NR: AP4040721 S/0043/64/000/007/0057/0070

AUTHOR: Vallander, S. V. ; Yegorova, I. A.; Ry*dalevskaya, M. A.

TITLE: The statistical Boltzmann distribution as a solution of the kinetic equations of gaseous mixtures

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 7, 1964, 57-70

2

TOPIC TAGS: Boltzmann distribution, gas law, gas kinetics, statistical distribution, statistical physics, detailed balance

ABSTRACT: After analyzing the differences between the two possible approaches to the derivation of a Boltzmann statistical distribution (i.e. either assuming the general laws of statistical physics to be valid or proceeding from the kinetic equations and finding a statistical distribution as a solution of these equations at equilibrium), the authors apply the second technique to the study of two principal questions: a) the type of internal interaction of gas particles which will guarantee the existence of solutions having the form of a Boltzmann distribution; b) the conditions under which the Boltzmann distribution will be the unique solution. The latter question has not previously been examined. On

ACCESSION NR: AP4040721

the basis of a detailed mathematical analysis of the behavior of a gas mixture, the authors conclude that certain kinetic equations (obtained in an earlier paper), which are suitable for gaseous mixtures when there is an interaction between the gas particles and when chemical reactions are allowed to occur, have an equilibrium solution in the form of a Boltzmann distribution; for such a solution to exist it is sufficient that the principle of detailed balance holds

$$|u_1' - u_2'|\sigma_{kl}(u_1', u_2')\, T_{kl}^{ln}(u_1', u_2', u_1, u_2) =$$
$$= |u_1 - u_2|\sigma_{ln}(u_1, u_2)\, T_{ln}^{kl}(u_1, u_2, u_1', u_2'),$$

and that only an exchange reaction occurs in the gases. If the mixture being studied is of monatomic gases and the principle of detailed balance holds, then the unique equilibrium distribution, being the solution of the kinetic equation, is the usual statistical Boltzmann distribution. Here the equilibrium distribution is completely determined by the given temperature and the atomic composition of the gases. If the principle of detailed balance is operating in the gaseous mixture but even one polyatomic component is present, then a chemical degeneration of the statistical distribution occurs. Finally, if the principle of detailed balance does not hold during collisions of the gas particles, then, as is known, a distribution is established which is different from the Boltzmann

ACCESSION NR: AP4040721

distribution. Orig. art. has: 47 formulas.

ASSOCIATION: none

SUBMITTED: 13May63 ENCL: 00

SUB CODE: ME NO REF SOV: 003 OTHER: 005

Card 3/3

L 42449-65 EWT(1)/EWP(m)/EWT(m)/EPF(c)/EPF(n)-2/EWA(d) Pd-1/Pr-4/Pu-4 WW/RM

ACCESSION NR: AT5009609 UR/3034/65/000/002/0122/0162

38

B+1

AUTHOR: Vallander, S. V., Yegorova, I. A., Rydalevskaya, M. A.

TITLE: Extension of the Chapman-Enskog method to a gas mixture with internal degrees of freedom and chemical reactions

SOURCE: Leningrad. Universitet. Nauchno-issledovatel'skiy institut matematiki i mekhaniki. Aerodinamika razrezhennykh gazov, no. 2, 1965, 122-162

TOPIC TAGS: Chapman Enskog method, reacting gas mixture, rarefied gas distribution function, internal freedom, hydrodynamics, Boltzmann equation approximation

ABSTRACT: Recently, several papers have appeared dealing with various extension of the Chapman-Enskog method (C. S. Wang-Chang, G. E. Uhlenbeck, Transport Phenomena in Polyatomic Molecules, University of Michigan Publication, CM-681, 1951; L. Waldmann, Truebenbacher, Zs. Naturforschung, 17a, no. 5, 363-376, 1962; L. Monchick, K. S. Yun, E. A. Mason, J. Chem. Phys., vol. 39, no. 3, 654, 1963). The present paper also attempts to generalize the Chapman-Enskog method to gas mixtures with internal degrees of freedom and in the presence of chemical reactions. It establishes, using the generalized approach, the approximate solution of the Boltzmann equation, and derives a system of differential equations for the calculation of macroscopic

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L 42449-65

ACCESSION NR: AT5009609

parameters entering into the distribution function describing the state of the gas mixture. Consequently, this paper differs from the above papers in that: 1) it covers gas mixtures permitting chemical reactions; and 2) it selects a different system of macroscopic parameters for the distribution function representation. The mathematical formulation is based on earlier papers by A. V. Belova and S. V. Vallander (Vestnik LGU, no. 4, no. 7, 1961) and S. V. Vallander et al. (Aerodinamika razrezhennykh gazov, no. 2, 1965, 14-30, LGU). Added to the usual assumptions of the rarefied gas theory is the assumption that, during chemical reactions, the collisions of two particles again result in two particles. Calculations yield the first approximation of the distribution function and the first approximation of the closed system of hydrodynamic equations. Orig. art. has: 202 formulas.

ASSOCIATION: None

SUBMITTED: 00/65 ENCL: 00 SUB CODE: ME, MA

NO REF SOV: 003 OTHER: 006

Card 2/2

2

ACCESSION NR: AP4040727 S/0043/64/000/007/0155/0161

AUTHOR: Vallander, S. V.; Yegorova, I. A.; Ry*dalevskaya, M. A.

TITLE: Extension of the Chapman-Enskog method to chemically-reactive gas mixtures with internal degrees of freedom

SOURCE: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 7, 1964, 155-161

2

TOPIC TAGS: gas kinetics, Chapman Enskog method, gas theory, kinetic theory, gas dynamics, internal freedom

ABSTRACT: The work in this paper differs from earlier work on the topic in two respects: 1) a gas mixture in which chemical exchange reactions can take place is considered, and 2) a different system of macroscopic parameters is chosen to represent the distribution function; in this connection, new macroscopic equations for the determination of these parameters are considered. The starting point for this paper was two previous papers by the senior author (A. V. Belova and S. V. Vallander. Integral'ny*ye kineticheskiye uravneniya s vnutrennimi stepenyami svobody*. Vestnik LGU, No. 7, 1961; S. V. Vallander, I. A. Yegorova and M. A. Ry*dalevskaya. Statisticheskoye raspredeleniye Bol'tsmana kak resheniye kineticheskikh uravneniy dlya gazovy*kh smesey. Vestnik LGU, No. 7, 1964).

Card 1/2

L 42443-65 EWT(l)/EWP(m)/EWT(m)/EPF(c)/EPR/FCS(k)/EWA(l) Pd-1/Pr-4/Ps-4
WW/RM

ACCESSION NR: AT5009603 UR/3034/65/000/002/0014/0030

26

AUTHOR: Vallander, S. V.; Yegorova, I. A.; Rydalevskaya, M. A.

B+1

TITLE: Statistical Boltzmann distribution as a solution of the kinetic equations for gas mixtures

SOURCE: Leningrad. Universitet. Nauchno-issledovatel'skiy institut matematiki i mekhaniki. Aerodinamika razrezhennykh gazov, no. 2, 1965, 14-30

TOPIC TAGS: Boltzmann distribution, detailed balance principle, gas kinetics, gas mixture distribution, chemically reacting gas mixture

ABSTRACT: The article discusses 1) the type of intermolecular interactions of gas particles which result in the exclusive existence of Boltzmann distribution-like solutions of the equilibrium kinetic equations; and 2) the conditions under which the Boltzmann distribution appears as the unique solution of equilibrium kinetic equations for reasonable balance-type conditions. The first problem was solved earlier for simple gas mixtures (see, e.g., C. S. Wang-Chang, G. E. Uhlenbeck, Transport phenomena in polyatomic molecules, Univ. Michigan Publications, CM-681, 1951; L. Waldmann, R. Trubenbacher, Zs. f.

Card 1/2

L 42443-65

ACCESSION NR: AT5009603

0

Naturforschung, 17a, no. 5, 363-367, 1962). Here it is studied for gas mixtures in the presence of chemical reactions. The second problem has never been solved before. The results show that in the case of the validity of the principle of detailed balance and in the presence of even a simple multiatomic component, one encounters a chemical degeneracy of the statistical distribution. Also, the principle of detailed balance represents the necessary condition for the existence of a Boltzmann-type distribution. Orig. art. has: 47 formulas.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: ME

NO REF SOV: 003 OTHER: 005

Card 2/2

VALLANDER, S. V.; YEGOROVA, I. A.; RYDALEVSKAYA, M.A.

Boltzmann's statistical distribution as a solution to kinetic equations describing gaseous mixtures. Vest. LGU 19 no.7:57-70 '64. (MIRA 17:7)

RYDALEVSKAYA M.D.

15

0A

The mobilisation of calcium, magnesium and manganese under the influence of biological and chemical factors. M. D. Ruidalevskaya. *Pedology* (U.S.S.R.) 28, 253-61(1933).—The introduction of NH_4NO_3 and $(NH_4)_2SO_4$ increases the mobility of Ca and Mg in chernozem and in a smaller measure in podsols. An increase in nitrification in podsols increases the mobility of Mn. NH_4 salts increase the mobility of Ca and Mg twice as much as $NaNO_3$.

J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

15

Cation exchange of humic acid of various soil types. M. D. Rydalevskaya and V. V. Tishchenko. *Pedology* (U.S.S.R.) 1944, No. 10, 401-8(English summary, 408-9).
Humic acid extd. from podzols, chernozem, and peats was titrated with $Ca(CH_3COO)_2$ or $BaCl_2$ at pH 8.1 to det. the cation-exchange capacity. Also detd. were the ash content and empirical compn. of the humic acid from the 3 sources. For detn. of the participation of the H of the phenol groups, the humic acid was methylated with CH_3OH to eliminate the H of the carboxyl groups. By analysis of the methoxyl groups it was found that the humic acids of various soils differ little. From these groups the mol. wt. of humic acid was detd. as 1400. After methylation the exchange capacity shows a drop. This is due to the fact that the H of the phenol group is active in the exchange.
J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

YEGOROVA, I.A.; RYDALEVSKAYA, M.A.

Extension of Boltzman's H-theorem to a reacting gaseous mixture with internal degrees of freedom. Vest. LGU 20 no.13:88-93 '65. (MIRA 18:7)

RYDALEVSKAYA, M.D.; TERESHENKOVA, I.A.

Characteristics of the humus-illuvial process in a whortleberry spruce forest under different herbaceous vegetation.
Vest. LGU 18 no.21:126-137 '63 (MIRA 16:12)

RYDALEVSKAYA, M.D.; TERESHENKOVA, I.A.

Composition and distribution of nitrogen compounds of the organic matter throughout the profile of forest Podzolic soils. Vest. LGU 20 no.3:105-114 '65. (MIRA 18:2)

RYDALEVSKAYA, M.D.; TERESHENKOVA, I.A.

Amount and distribution of different forms of nitrogen throughout the profile of some forest soils [with summary in English]. Vest. LGU 13 no.3:29-34 '58. (MIRA 11:5)
(Forest soils) (Nitrogen)

RYNDALEVSKAYA, M. D.

USSR/Soil Cultivation. Organic Fertilizers. J-4

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1273.

Author : Ryndalevskaya, M.D., Nikolayeva, T.A.
Inst : Leningrad State University.
Title : On the Question of Loss of Nitrogen and Organic Matter in Composting Peat.

Orig Pub: Uch. zap. LGU, 1956, No 221, 141-149.

Abstract: Upland, slightly decomposed peat, upland, greatly decomposed peat, and lowland, slightly decomposed peat, were composted for nine months at a temperature of 20° and moistness of 70-80% of full liquid capacity, with lime, lupine, and mixed lime and lupine. The overall loss of N when the upland, slightly decomposed peat was composted was 0.1% of the original content; with the upland, greatly decomposed peat it was 0.01%, and with the lowland, slightly decomposed peat it was from 9% to 1%. When the upland, slightly decomposed peat was composted with

Card : 1/2 -12-

USSR/Soil Cultivation. Organic Fertilizers. J-4

Abs Jour: RefZhur-Biologiya, No 1, 1958, 1273.

lime, the nitrogen loss was 12.2%, with lupine it was 15.4%, and with mixed lime and lupine -- 29.1%. When the upland, greatly decomposed peat was composted with lime -- 0.2%, with lupine -- 0.3%, and with mixed lime and lupine -- 0.6%. When the lowland, slightly decomposed peat was composted with lupine the total N loss was 11.0%. The total loss of organic materials (hemicellulose, celluloses, lignin, etc.) in the composting process was from 3-23%. Adding lime and lupine to the compost increased the loss of organic substances. To minimize the N losses in various peats, differing from one another according to the degree of decomposition and botanical composition, an individualized approach in the choice of methods of composting and length of time of the process is necessary.

Card : 2/2 -13-

J-3

USSR / Soil Science. Biology of Soils.

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 77404

Author : ~~Rydalevskaya, M. D~~.; Tereshenkova, I. A.
Inst : Leningrad State University
Title : On Natural Recognition of Nitrogen Compounds of Humic Acids

Orig Pub : Uch. zap. LGU, 1956, No 221, 131-140

Abstract : In humic acids of chernozem soils, the content of non-hydrolyzed N is higher than in humic acids of soils of the podzolic zone. The increased content of hydrolyzed nitrogen compounds in humic acids of soils of the turf-podzolic zone is explained, evidently, by the presence in them of a significant content of carbohydrate complexes, the aldehyde groups of which react easily with amino-acids. Determination of non-hydrolyzed and hydrolyzed forms of N in humic acids can serve as a diagnostic sign for the genetic classification of humic acids. Samples are used of

Card 1/2

RYDALEVSKAYA, M.D.; TERESHENKOVA, I.A.

[redacted]

Understanding the nature of nitrogen compounds of humic acids.
Uch. zap. LGU no.221:131-140 '56. (MIRA 10:8)
(Humic acid)

RYDALEVSKAYA, M.D.; NIKOLAYEVA, T.A.

Losses of nitrogen and organic matter in composting peat. Uch. zap. LGU no.221:141-149 '56. (MLRA 10:8)

(Compost) (Peat)

RYDALEVSKAYA, M.D.; NIKOLAYEVA, T.A.

Loss of nitrogen and organic matter in composting peat. Uch.zap.Len.
un. no.221:141-149 '56. (MIRA 10:3)
(Peat) (Compost)

RYDALEVSKAYA, M.D.; TERESHENKOVA, I.A.

[redacted]

Understanding the nature of nitrogen compounds in humic acids. Uch. zap.Len.un. no.221:131-140 '56. (MLRA 10:3)
(Humic acids) (Nitrogen compounds)

RYdALevsKAYA, M.D.

USSR.

The chemical nature of humic acids isolated from soil by
various methods. M. D. Rydalevskaya and A. V. Skorok-
hod. Uchenye Zapiski Leningrad. Gosudarst. Univ. im.
A. A. Zhdanova No. 140 Ser. Biol. Nauk No. 27, 18-29
(1951).—R. and S. compare various chem. methods for
isolating humic acids (I) with neutral and alk. solvents
successively, with and without decalcification by H_2SO_4.
The neutral solvent (1% NaF) dissolves from 0% of I in
terra rossa to 68% of I in humus-illuvial soils; 0.1N NaOH
exts. the remainder of the I. Total extn. of I by this method
equals that by extn. with NaOH after decalcification. N
content of I extd. by NaF is the lowest, and in the fraction
subsequently extd. with NaOH the N content is the highest.
The elementary compn. of I is otherwise the same (not
different compds. as previously believed). Hydrolysis with
25% HCl brings the N of the 3 fractions down to nearly the
same level. The exchange absorption capacity (II) is
highest in the NaF fraction and lowest in the subsequent
NaOH fraction, and hydrolysis with 2% HCl does not
change II. R. and S. believe that the N-contg. substances
are not part of the I mol. but are protein in nature. N con-
tent for humins contg. I is the same as for I. The difference
in II is believed to be the result of differences in dispersion.
Fractions isolated by alkali after NaF have a lowered car-
A. W. Daly
boxyl content.

RYDALEVSKAYA, M.D.

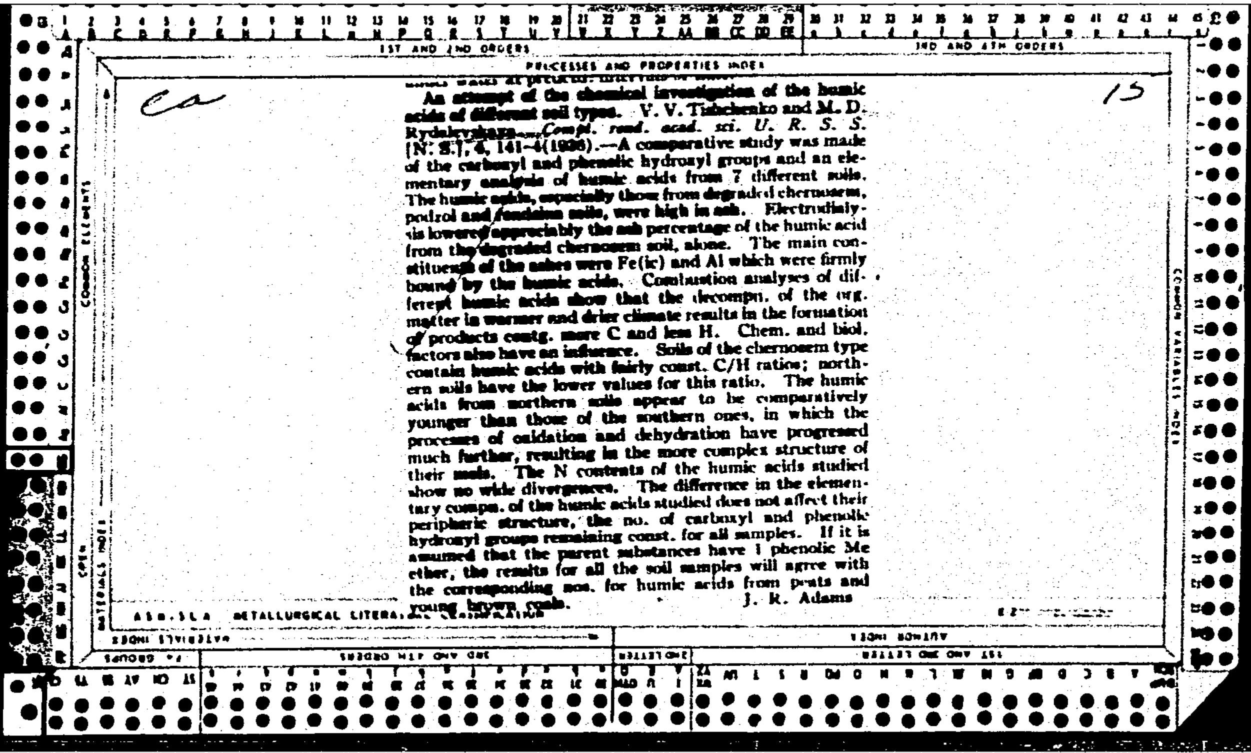
"Cations Exchange of Humic Acids of Various Soil Types," Pedology, No. 1, 1944.

RYDALEVSKAYA, M. D., SKOROKHOD, A. V.

Humic Acid

Chemical nature of humic acids isolated from soils by various methods. Uch.zap.Len.un., No. 140, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.



1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

Ca

15

An attempt of the chemical investigation of the humic acids of different soil types. V. V. Tishchenko and M. D. Rydalevskaya. *Compt. rend. acad. sci. U. R. S. S.* [N. S.], 4, 141-4(1936).—A comparative study was made of the carbonyl and phenolic hydroxyl groups and an elementary analysis of humic acids from 7 different soils. The humic acids, especially those from degraded chernozem, podzol and rendzina soils, were high in ash. Electrodialysis lowered appreciably the ash percentage of the humic acid from the degraded chernozem soil, alone. The main constituents of the ashes were Fe(ic) and Al which were firmly bound by the humic acids. Combustion analyses of different humic acids show that the decompn. of the org. matter in warmer and drier climate results in the formation of products contg. more C and less H. Chem. and biol. factors also have an influence. Soils of the chernozem type contain humic acids with fairly const. C/H ratios; northern soils have the lower values for this ratio. The humic acids from northern soils appear to be comparatively younger than those of the southern ones, in which the processes of oxidation and dehydration have progressed much further, resulting in the more complex structure of their mols. The N contents of the humic acids studied show no wide divergences. The difference in the elementary compn. of the humic acids studied does not affect their peripheric structure, the no. of carboxyl and phenolic hydroxyl groups remaining const. for all samples. If it is assumed that the parent substances have 1 phenolic Me ether, the results for all the soil samples will agree with the corresponding nos. for humic acids from peats and young brown coals.

J. R. Adams

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

RYDALEVSKIY, E.E., GAUKINA, E.S., REZNICHENKO, M.S., (USSR)

"Structural Changes in Gliadin Induced by Irradiation of Wheat Grain."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

S/218/63/028/001/001/002
B144/B186

AUTHORS: Reznichenko, M. S. (Deceased), Rydalevskiy, Ye. Ye., and Gankina, E. S.

TITLE: Structural changes of gliadin caused by gamma irradiation of wheat grains

PERIODICAL: Biokhimiya, v. 28, no. 1, 1963, 52-56

TEXT: Grains of Erythrospermum 841 wheat containing 10-26% moisture were irradiated in vivo with $10 \cdot 10^6$ and $20 \cdot 10^6$ r. Then gliadin was extracted and the N-terminal radicals were determined. The dinitrophenolated (DNP) amino acids were separated by paper chromatography into: 1) borate buffer (pH 9) - n-butyl alcohol - ethyl alcohol - isoamyl alcohol, ratio 6:4:1:4; 2) isoamyl alcohol saturated with phosphate buffer (pH 6.2); 3) phenol saturated with water. The following N-terminal amino acids were identified: aspartic and glutamic acids, serine (by additional separation into n-butyl alcohol - butyl acetate - 1% NH_4OH, ratio 1:2:3), threonine, lysine, phenyl alanine, and leucine. The quantitative spectrophotometric

Card 1/2

Structural changes of gliadin ...

S/218/63/028/001/001/002
B144/B186

analysis of the DNP derivatives of glutamic and aspartic acids and of serine in 1 and 3 showed a significant reduction in the irradiated samples. The content of N-terminal amino acids decreased linearly with increasing irradiation dose; this is attributed to deamination of their α amino groups. The sedimentation coefficient was determined in a 1% solution of gliadin in 50% aqueous solution of dimethyl formamide. Then the molecular weight was calculated from the formula of V.G. Aldoshin and S.Ya. Frenkel' (Vysokomolekul. soyedineniya 4, 116, 1962). It was 68,400 for nonirradiated gliadin, 72,000 for gliadin containing 10% moisture and irradiated with $10 \cdot 10^6$ r, and 55,000 for gliadin containing 25% moisture and irradiated with $20 \cdot 10^6$ r. In the same order, the intrinsic viscosities were 0.3, 0.336, and 0.195. The degradation of the protein molecules is due to the splitting of peptide bonds by free radicals forming in a moist medium on γ-irradiation. There are 2 figures and 3 tables.

ASSOCIATION: Tekstil'nyy institut im. S.M. Kirova, Leningrad (Textile Institute imeni S.M. Kirov, Leningrad)

SUBMITTED: April 13, 1962

Card 2/2

REZNICHENKO, M.S. [deceased]; RYDALEVSKIY, Ye.Ye.; GANKINA, E.S.

Structural changes in gliadin caused by -irradiation of wheat grain. Biokhimiia 28 no.1:52-56 Ja-F '63. (MIRA 16:4)

1. The Textile Institute, Leningrad.
(GLIADINS) (GAMMA RAYS)

RYDALIN, N. N.

CONTROL OF THE HARDENING PROCESS OF STRUCTURAL STEEL DURING WELDING. N.N. Rydalin and L.A. Fridlyand. (Avtogennoe Delo, 1948, No. 2, pp. 3-11). (In Russian). The influence of the thermal conditions during are welding on the mechanical properties of the joint, and the interpretation of curves of the isothermal decomposition of austentic are considered. For choosing the conditions of welding required to obtain joints of given hardness, a method of calculation attributed to the Moscow Technical College is described. This is based on: (a) The relationship between the technical conditions of the welding process and the constructional parameters of the joint on the one hand, and the rate oc cooling of the weld on the other: (b) the relationship between the hardness of a given steel and the rate of cooling in the upper subcritical interval. Different sets of equations are given for calculating the rate of cooling during the welding of sheets thicker or thinner than 5 mm., the values of the parameters for various conditions being tabulated or shown graphically. Two examples are worked, showing the calculations of rate of cooling for steel sheets 1.5 mm. thick welded with and without preheating respectively. The cal-

RYDALSKI, C.

Some tasks of the Institute of the Meat Industry against the background of the development of the meat industry in the 5-Year Plan. p. 1.
Vol 7, no. 12, Dec. 1955. GOSPODARKA MIESNA. Warsaw, Poland

So: Eastern European Accession. Vol 5, no. 4, April 1956

RYDANOV, V., starshiy inzhener-leytenant

Model of the "Wave channel" antenna. Voen. vest. 41 no.1:101-102 Ja '62. (MIRA 16:11)

87921 S/191/60/000/004/002/015
B016/B058

15.8112 2209

AUTHORS: Gorbunov, V. N., Rydvanova, S. S.

TITLE: Kinetics of the Condensation Reaction of Urea With Formaldehyde at High Temperatures

PERIODICAL: Plasticheskiye massy, 1960, No. 4, pp. 5-8

TEXT: The authors report on a study of the condensation kinetics of urea with formaldehyde at temperatures above 100°C. They elaborated special methods for this purpose. A calculated amount of urea was dissolved in a calculated amount of formalin with a pH value of 5.5-6, and this solution was kept in a sealed ampoule in hot oil (140-150°C) for up to 20 min. The ampoule was subsequently quenched in cold water. The content of free CH_2O and of methylol groups in the cooled sample was determined. From the results obtained the authors conclude that the high-temperature condensation proceeds faster than under atmospheric pressure. This process comprises conversions of the resin, which otherwise occur during drying of the molded material and molding. The resins formed in this way differed in several

Card 1/4

87921

Kinetics of the Condensation Reaction of Urea With Formaldehyde at High Temperatures

S/191/60/000/004/002/015
B016/B058

constants from those produced by the ordinary process. The authors ascertained the difference between the CH_2O concentration at the beginning of the reaction (31.8%) and the total of free CH_2O and methylol groups at a certain instant of the reaction. This difference corresponds to the amount of CH_2O which reacted under the formation of bonds. The authors point out that the drawing of the curve for the degree of condensation may offer a new method of studying the polycondensation processes of polyamide resins. It may also contribute to the clarification of the formation mechanism and the solidification of these resins. The authors further determined the refractive indices during the reaction. The authors refuted the assumption that condensation is not characterized by these indices. By means of the precision refractiometer ИРФ-23 (IRF-23) they found that the refractive index changes so quickly in the course of the reaction that this can be traced directly (Fig. 3). This method may be used to check the manufacturing process and, if suitably refined, for studying the reaction kinetics, too. Additional experiments were made at 140°C and a ratio of urea : CH_2O = 1 : 1.5; 1 : 1.3, and 1 : 1.2 in weakly acid and alkaline media, and the

X

Card 2/4

87921

Kinetics of the Condensation Reaction of Urea With Formaldehyde at High Temperatures

S/191/60/000/004/002/015
B016/B058

temperature dependence of the condensation intensity was studied. The authors conclude from the results obtained that at about 170°C, free CH_2O and methylol groups disappear almost completely from the resin. The authors describe the temperature of 170-180°C as being critical. The destruction of the product and the formation of substances with new structures is related to it. Consequently, high temperature considerably accelerates the condensation and (up to 170°C) does not impede the manufacture of high-quality resins. G. N. Artamonova, V. A. Shorygin, and A. I. Stepanova participated in the experimental part of the study. A paper by A. A. Vansheydt (Ref. 7) is mentioned. There are 6 figures and 7 references: 2 Soviet, 2 British, 2 German, and 1 US.

Card 3/4

87921

S/191/60/000/004/002/015
B016/B058

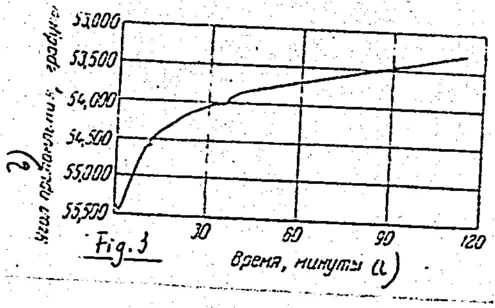


Fig. 3

Legend to Fig. 3: Change of the angle of refraction for monochromatic light λ = 546.8 mμ during condensation of urea with formaldehyde at a ratio of 1 : 2, at 98°C and pH = 5.5. a) time, minutes b) angle of refraction, degrees.

Card 4/4

RYDCHENKO, V.

Pneumatic clamp with fixed pneumatic transmission. Stan.i instr. 27 no.4:42 Ap '56. (MLRA 9:8)

(Machine tools--Pneumatic driving)

AID P - 5045

Subject	: USSR/Engineering
Card 1/1	Pub. 103 - 16/22
Author	: Rydchenko, V.
Title	: Pneumatic gripping device with rigid pneumatic drive
Periodical	: Stan. i instr., 4, 42, Ap 1956
Abstract	: A very brief description of the pneumatically-operated clamp, its operation and advantages. One drawing.
Institution	: None
Submitted	: No date

RYDCHENKO, V.M., assistent

Determining the resistance of bolts by the method of step-by-step increasing stresses. Izv.vys.ucheb.zav.; mashinostr. no.6:146-152 '62. (MIRA 15:11)

1. Khar'kovskiy aviatsionnyy institut.
(Bolts and nuts--Testing)

RYDCHENKO, V.M.

S/147/59/000/04/020/020
E031/E413

AUTHOR: Zolotukhin, V.K.

TITLE: The Scientific-Technical Conference at Khar'kov Aviation Institute

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, 1959, Nr 4, pp 161-165 (USSR)

ABSTRACT: In May 1959, the 16th Conference of Professorial and Teaching Staff took place.

Mathematics and Mechanics Section. The following papers were read: "A Spectral Representation of the Theory of Axisymmetric Turbulence" by Candidate of Physical and Mathematical Sciences G.M.Taranova; "Some Evaluations for Functions with Positive Real Parts" by Assistant G.S.Shpak; "Existence, Uniqueness and Correctness Theorems for Mixed Systems of Functional Equations" by Docent, Candidate of Physical and Mathematical Sciences M.N.Tikhov; "On the Application of Boll and Chebyshev Points to the Solution of Some Problems in the Synthesis of Four Bar Linkages" by Docent, Candidate of Physical and Mathematical Sciences Ya.L.Geronimus; "The Influence of the Structural Properties of Functions on the Convergence Almost Everywhere of their Conjugate Fourier Series" by Docent, Candidate of Physical and Mathematical Sciences B.I.Golinskiy.

General Technological Section. The following papers were read: "The Relation Between the Compton Length of Waves, the Length of de Broglie Waves and the Acceleration Potential for High Energy Particles" by Docent, Candidate of Physical and Mathematical Sciences I.Ya.Mints; "The Problem of Determining the Heat Transfer Coefficient of Conductors" by Senior Instructor P.P.Bezuglov; "An Electron-Graphical Method of Investigating the Structure of Matter" by Assistant I.Ya.Surovtsev; "On the Results of the VIII th Mendeleyev Congress of Chemists of the USSR" by Docent, Candidate of Chemical Sciences E.I.Krech.

Card 3/11

Electrical and Radio Technology Section. The following papers were read; "On the Problem of the Optimum Passage of Transients in an Electric Drive with a Controlling Exciter" by Docent, Candidate of Technical Sciences M.M.Perel'muter; "The Experimental Determination of the Reactances in Synchronous Machines" by Senior Instructor S.V.Khmel'nitskiy; "An Experimental Method of Investigating Electric Fields" by Assistant A.I.Lopatin; "A Discrete Transformer of Current into Code Signals with Magneto-Electric Comparison Units" by Docent, Candidate of Technical Sciences G.M.Butayev; "The Application of Infrared Instruments in Aviation" by Docent, Candidate of Technical Sciences I.D.Artamonov.

Card 4/11

General Engineering Section.
"The Adaptation of a Thermobaric Chamber to the Simulation of the Sinking of a Mine Shaft in Quicksand and Certain Results of Investigations to Determine the Mechanical Characteristics of Sand at Different Temperatures and Humidities" by Docent, Candidate of Technical Sciences S.V.Ulyashenko; "Friction and Abrasion in Cermets" by Docent, Candidate of Technical Sciences O.I.Goldayeva; "The Construction of Multi-Satellite Planetary Gears" by Assistant V.A.Tkachenko; "The Influence of Work Hardening on the Fatigue of Threaded Connections" by Assistant V.M.Rydchenko; "Investigation of Cermets Slide Bearings" by Assistant A.S.Efoyan.

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RYDCHENKO, V.M., assistent; TKACHENKO, V.A., starshiy prepodavatel'

Determining stresses in a tightly bolted joint taking into consideration the changes in the rigidity of intermediate parts. Izv. vys.ucheb.zav.;mashinostr.no.1:44-48 '63.
(MIRA 16:5)

1. Khar'kovskiy aviatsionnyy institut.
(Bolts and nuts) (Strains and stresses)

RYDCHENKO, V.M., inzh.; TKACHENKO, V.A., inzh.

Determining the coefficient of basic load of a tightened bolt joint. Vest.mashinostr. 42 no.8:15-18 Ag '62. (MIRA 15:8)
(Bolts and nuts)

RYDEL, M.

RYDEL, M. Rolling cutter with hollow ground forward edges. p. 378.

Vol. 2, No. 9, Sept. 1954.
STROJIRENSKA VYROBA
TECHNOLOGY
Praha, Czechoslovakia

So: East Europeon Accessions, Vol. 5, No. 5, May 1956

L 51094-65 EWT(d)/EEC-4 Pac-4

ACCESSION NR: AT5011788 PO/2516/64/000/037/0045/0074 16 15 B+1

AUTHOR: Rydel, M.

TITLE: Parameters of nonuniform coaxial cables and the methods of their measurement

SOURCE: Warsaw. Politechnika. Zeszyty naukowe, no. 96. Elektryka, no. 37, 1964, 45-74

TOPIC TAGS: coaxial cable, nonuniform coaxial line, teletransmission line, coaxial cable parameter, echo signal, line resonance 6

ABSTRACT: The paper systematizes the various parameters which characterize the electrical properties of nonuniform coaxial lines and discusses the relations existing between these parameters. The reflections due to irregularities of characteristic and local line impedance cause reflections which show up as echo signals at the ends of the line; among these, signals due to nonuniformities within the line must be distinguished from those which are due to reflections from the loading impedance. The reflections due to internal nonuniformities are characterized by two echo coefficients (characterizing signals reflected towards the generator) and the side-flow coefficient (characterizing signals resulting from double reflections within the line). Echo signals in turn cause deviations in the input impedance of the coaxial line and make it a nonsymmetric quadrupole

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which can be characterized by two characteristic impedances and also by the coefficient of asymmetry. These quantities can be expressed by the echo-signal coefficients. The obtained formulas relating these coefficients serve as a basis for the derivation of relations between other quantities which characterize nonuniform coaxial lines. The derived relations are shown to agree with those resulting from the approximate matrix of a nonuniform coaxial line as derived by other authors. However, the method of echo coefficients used by the author to derive these relations makes it possible to estimate more readily their degrees of approximation, and to avoid some erroneous conclusions which can be drawn when using the theory based on the approximate matrix of a nonuniform coaxial line. The physical meaning of some parameters which are characteristic of nonuniform lines is illustrated by explaining the principles of measurement methods; this is limited, however, to the frequency methods. In particular, a description is given of the methods of measuring the mean wave impedance and propagation constant, the method of measuring the input impedance, the line asymmetry, and the mean-square deviation of the characteristic impedance from its mean value. Analyses of the measurement circuits are presented. Three methods of calculating the impedance deviation function from the measurements of deviation at resonant frequencies are presented. In conclusion,

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the paper discusses the advantages and shortcomings of the frequency methods of measuring the quantities characterizing nonuniform coaxial lines. It is concluded that the resonance method appears to be the most useful for measuring the mean values of the characteristic impedance and propagation constant of nonuniform lines. Orig. art. has: 7 figures and 100 formulas.

ASSOCIATION: Katedra Teletransmisji Przewodowej Politechniki Warszawskiej (Guided Teletransmission Department, Warsaw Polytechnic Institute)

SUBMITTED: 27Jun63 ENCL: 00 SUB CODE: EC

NO REF SOV: 000 OTHER: 016

Card 3/3

RYDEL, Mieczyslaw

Theoretical problems of coaxial cables with impedance irregularities. Rozpr elektrotech 10 no.4:675-692 '64.

1. Department of Wire Teletransmission of the Technical University, Warsaw.

RYDEL, Mieczyslaw

Computation of doubly reflected signals in coaxial cables with impedance irregularities. Rozpr elektrotech 10 no.1/2:127-180 '64

1. Department of Wire Teletransmission, Technical University, Warsaw.

RYDEL, S.

GRABOWSKI, K.; RYDEL, S.; SZEWCZYK, J.; ZALEWSKA, E.

Trace element deficiency and disorders of vitamin B12 in cattle and sheep on peat soils in the Notec valley. Acta physiol. polon. 8 no.3: 340-343 1957.

1. Z Zakladu Higieny Zwierzat Instytutu Weterynarii w Bydgoszczy i z Zakladu Analizy Technicznej Politechniki Warszawskiej.

(TRACE ELEMENTS, deficiency,
in cattle & sheep grazed on peat soil (Pol))
(VITAMIN B12, metabolism,
disord. in cattle & sheep grazed on peat soil (Pol))
(SHEEP,
trace elements defic. & vitamin B12 metab. disord. in herds grazed on peat soil (Pol))
(CATTLE,
same)

Country : Poland
CATEGORY : Farm Animals. General Problems. Q-1

ABS. JOUR. : RZBiol., No. 4, 1959, No. 16606

AUTHOR : Grabowski, K.; Rydel, S.; Szemczyk, J.;*
INST. : -
TITLE : Microelement Deficiency and B_{12} Hypovitaminosis in Cattle and Sheep on the Peat Grounds of the Nadnotetskaya Dolina [Valley]

ORIG. PUB. : Med. weteryn., 1957, 13, No 11, 669-674

ABSTRACT : In the Nadnotetskaya Dolina [Valley] large and small horned cattle were observed to become afflicted with anemia and cachexia because of microelement deficiency. A slight decrease of the Cu content and a sharp diminution of vitamin B_{12} were found to exist in their blood serum. In sick cows the vitamin B_{12} level amounted to 287-460 gamma/ml in the winter and in controls to 570- 930 gamma/ml. When Cu and Co were added to the ration, anemia symptoms disappeared and the

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*Zalewska, E.

RYDEL, STEFAN

E-2

POLAND/Analytical Chemistry - Analysis of Inorganic Substances.

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 14230.

Author : Rydel Stefan, Szewczyk Jerzy
Inst : Warsaw Polytechnic
Title : Determination of Traces of Copper and Cobalt in Feeds and Soil.

Orig Pub: Zesz. nauk. Politechn. warsz., 1957, No 30, 55-60

Abstract: In dtermining Cu and Co in feeds a sample of about 5 g is incinerated in a porcelain crucible at 350-400°, the oxidation of the coke that is formed being accelerated by action of HNO_3. The ash is evaporated to dryness with several ml of HNO_3, extracted with hot, acidified, twice-distilled water, and SiO_2 is filtered off. In soil analysis the sample is heated first with concentrated HCl and then with HNO_3. In both cases the filtrate is evaporated to about 15 ml, and there are added dimethylglyoxime (to bind Co), NH_4OH to a pH of about 9, and Na-diethylthiocarbamate. The Cu-diethylthiocarbamate

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RYDENKO, M. G. i GROMOVA, V. N.

26223 O vliyanii khloristogo alyuminiya na tsiklopenten. Doklady Akad. Nayek SSSR, Novaya seriya, T. LXVII, No. 5, 1949, s. 855-58 Bibliogr: s. 862

SO: LETOPIS' NO. 35, 1949

RYDER, K.

Occupational diseases caused by pneumatic tools. Wiadomosci lek. 7 no.6:347-349 June 54.

(OCCUPATIONAL DISEASES, etiology and pathogenesis, pneumatic tools)

RYDER, Karol

Effect of short wave radiant energy in health. Wiadomosci lek. 7 no.3:183-187 Mar. 54.

(RADIATIONS, effects,
short wave rays)

RYDER, Karol

Abnormal air pressure as a cause of occupational disease.
Wiadomosci lek. 7 no.5:303-313 May 54.
(DECOMPRESSION SICKNESS.)

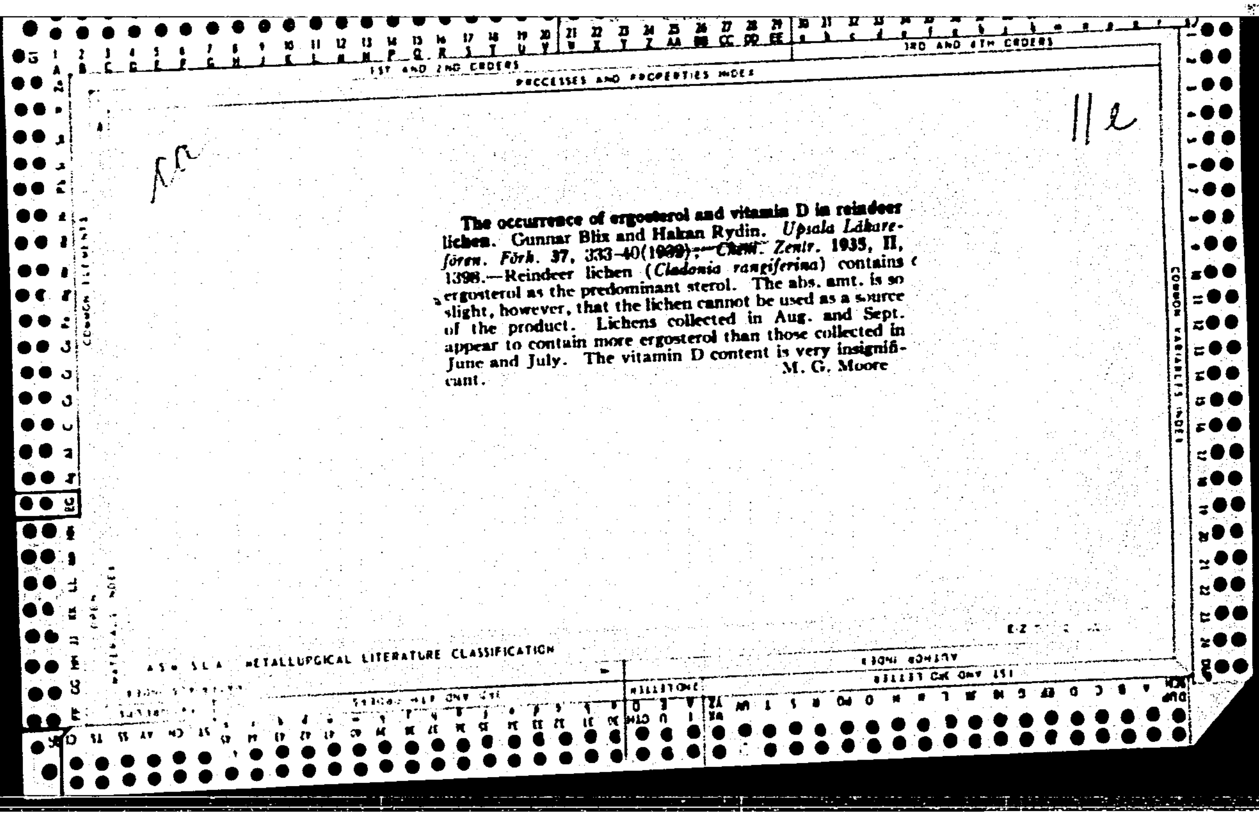
RYDER, Karol

[redacted]

Occupational infections. Wiadomosci lek. 7 no.7:391-398 July 54.
(COMMUNICABLE DISEASES,
occup.)
(OCCUPATIONAL DISEASES,
communicable)

RYDER, Karol

Effect of long wave radiant energy on health. Wiadomosci lek. 7 no.2:125-128 Feb. 54.
(RADIATIONS, effects,
long waves)


1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION
11e

The occurrence of ergosterol and vitamin D in reindeer lichen. Gunnar Blix and Hakan Rydin. *Upsala Läkare-fören. Förh.* **37**, 333-40(1932); *Chem. Zentr.* 1935, II, 1398.—Reindeer lichen (*Cladonia rangiferina*) contains ergosterol as the predominant sterol. The abs. amt. is so slight, however, that the lichen cannot be used as a source of the product. Lichens collected in Aug. and Sept. appear to contain more ergosterol than those collected in June and July. The vitamin D content is very insignificant.

M. G. Moore

RYDKIY, S.G.

6A

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Sorption of phosphate ions by soils. S. G. Rydkii.
Vsesoyuz. Akad. Sel'sko-Khoz. Nauk Lenina, Nauch.-
Issledovatel. Inst. Udobrenii, Agrotekh. i Agropochvove-
deniya Gedroitsa, Trudy Leningrad. Otdel. 1938, Pt. 2,
23-64; *Chem. Zentr.* 1940, II, 2367.—The sorptive capac-
ity for phosphates is a fairly const. quantity if detd. at pH
6.5 under fixed conditions of satn. The satn. must be
done with phosphoric acid solns. of high concn. (1.0 N)
with the ratio of quantity of soln. to quantity of soil being
large and with a long period of contact and frequent shak-
ing. The detn. of free and sorbed PO_4 ions is best under-
taken by detg. the free PO_4 ions in the salt-contg. aq. ext.
after removal of the basic portion of the equil. soln. The
sorbed PO_4 ions are liberated by repeated treatment of the
soil with dil. HCl or H_2SO_4. The sorption of PO_4 ions in
the soil depends upon the concn. of the PO_4 soln. with
which the soil was treated and also on the pH of the soln.,
the amt. of adsorbed cations, the content in mobile R_2O_3
and the phys. condition of the soil. When the reaction is
neutral or alk. the adsorbed Ca plays a considerable role
in the fixing of PO_4 ions by the soil; the sorption effected
by other components becomes less under these conditions.
After previous drying of the soil the sorption of PO_4 ions
in most cases increases as a result of the dehydration of the
protective envelope surrounding the soil particles. In
order to characterize the sorptive properties it is essential
to det. the sorptive capacity for phosphate. Of special
interest is the ratio of the adsorptive capacities for cations
and for PO_4 ions, which is related to the ratio of acidoids
and basoids in the soil. This ratio varies for soils of dif-
ferent types. The adsorptive capacity for cations in-
creases as a result of the use of fertilizer while that for
PO_4 ions increases, although only to a slight extent.

M. G. Moore

ASM-SLA METALLURGICAL LITERATURE

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ACCESSION NR: AP5015736 UR/0205/65/005/003/0446/0450
58.039.1

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B

AUTHOR: Il'ina, G. V.; Kuznetsova, N. N.; Rydkiy, S. G.

TITLE: Effects of ionizing radiation and physiologically active substances on plant metabolism

SOURCE: Radiobiologiya, v. 5, no. 3, 1965, 446-450

TOPIC TAGS: ionizing radiation, radioprotective agent, carbohydrate metabolism, cysteine

ABSTRACT: The authors studied the role of cysteine and compound P-46 [2-hydroxy-4-(4'-α-pyridylsulfamidophenyl-imino)-1,4-naphthoquinone] in blocking the adverse effects of ionizing radiation on carbohydrate metabolism in sugar beet. Irradiation of sugar beet seeds with a dose of 2 kr reduced the amount of soluble carbohydrates in the aerial parts of the plants and lowered the sugar content of the roots. Soaking the seeds in solutions of cysteine or P-46 prior to exposure protected them against these effects of ionizing radiation. Use of either radioprotective agent also increased the yield. When the seeds were soaked in distilled water (control),

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irradiation resulted in reduced weight of the tops and roots, whereas treatment with cysteine and P-46 increased the weight of the roots. Orig. art. has: 2 figures, 2 tables.

ASSOCIATION: Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Soil Biology Department, Moscow State University)

SUBMITTED: 09Jul63 ENCL: 00 SUB CODE: LS, NP

NO REF SOV: 006 OTHER: 000

Card 2/2

IL'INA, G.V.; RYDKIY, S.G.

Study of the absorption of radioactive fission products by field crops. Report No.1: Accumulation of radioactive fission products by grain and oilseed plants. Vest. Mosk. un. Ser. 6: Biol., pochv. 20 no.1:42-52 Ja-F '65. (MIRA 18:3)

1. Laboratoriya radiobiologii rasteniy Moskovskogo universiteta.

IL'INA, G.V.; RYDKIY, S.G.

Study of the absorption of radioactive fission products by field crops. Report No.2: Accumulation of radioactive fission products by pulse crops and perennial grasses. Vest.Mosk. un. Ser. 6: Biol., pochv. 20 no.2:3-9 Mr-Ap '65. (MIRA 18:5)

1. Laboratoriya radiobiologii Moskovskogo universiteta.